SUPPLEMENTARY MATERIALS

Fig. S1. Arrangement of the pot experiment

Table S1

Complete correlation matrix - with the LED period (A)

Variables	As SOIL	Cr SOIL	Cd SOIL	Ni SOIL	Hg SOIL	As PLANT	Cr PLANT	Cd PLANT	Ni PLANT	Hg PLANT
As SOIL	1.000	0.381	0.851	0.160	0.150	0.280	0.460	0.510	0.585	0.082
Cr SOIL	0.381	1.000	0.144	0.768	0.320	0.564	–0.340	0.557	0.438	0.125
Cd SOIL	0.851	0.144	1.000	0.045	0.040	0.131	0.453	0.219	0.484	0.159
Ni SOIL	0.160	0.768	0.045	1.000	–0.315	0.813	–0.118	0.329	0.181	0.003
Hg SOIL	0.150	0.320	0.040	–0.315	1.000	–0.512	–0.543	0.258	0.141	0.081
As PLANT	0.280	0.564	0.131	0.813	–0.512	1.000	0.332	0.251	0.466	0.210
Cr PLANT	0.460	–0.340	0.453	–0.118	–0.543	0.332	1.000	0.186	0.193	–0.131
Cd PLANT	0.510	0.557	0.219	0.329	0.258	0.251	0.186	1.000	–0.018	–0.601
Ni PLANT	0.585	0.438	0.484	0.181	0.141	0.466	0.193	–0.018	1.000	0.781
Hg PLANT	0.082	0.125	0.159	0.003	0.081	0.210	–0.131	–0.601	0.781	1.000

Values of "Pearson's correlation coefficient *R*" among the measured parameters are shown. *R*-values in red indicate a significant correlation ($\alpha < 0.05$)

Table S2

Complete correlation matrix - without the LED period (B)

Variables	As SOIL	Cr SOIL	Cd SOIL	Ni SOIL	Hg SOIL	As PLANT	Cr PLANT	Cd PLANT	Ni PLANT	Hg PLANT
As SOIL	1.000	0.347	0.882	0.139	0.390	–0.016	0.347	0.031	0.541	0.079
Cr SOIL	0.347	1.000	0.224	0.521	0.033	0.131	0.307	0.222	0.874	0.406
Cd SOIL	0.882	0.224	1.000	0.080	0.496	0.152	0.211	0.117	0.425	0.098
Ni SOIL	0.139	0.521	0.080	1.000	–0.624	0.151	0.571	–0.411	0.493	0.338
Hg SOIL	0.390	0.033	0.496	–0.624	1.000	0.174	–0.544	0.634	–0.102	–0.198
As PLANT	–0.016	0.131	0.152	0.151	0.174	1.000	–0.475	0.458	–0.062	0.643
Cr PLANT	0.347	0.307	0.211	0.571	–0.544	–0.475	1.000	–0.786	0.589	0.220
Cd PLANT	0.031	0.222	0.117	–0.411	0.634	0.458	–0.786	1.000	0.022	–0.062
Ni PLANT	0.541	0.874	0.425	0.493	–0.102	–0.062	0.589	0.022	1.000	0.397
Hg PLANT	0.079	0.406	0.098	0.338	–0.198	0.643	0.220	–0.062	0.397	1.000

Values of “Pearson’s correlation coefficient *R*” among the measured parameters are shown. *R*-values in red indicate a significant correlation ($\alpha < 0.05$)

Table S3

Two-way ANOVA: multivariate significance test. Comparison of the effect of Irrigation and Light factors on the concentration of HMs in the soil samples

Effect	Test	Value	*F*	*α*
Intersection of values	W test	0.01	758.20	-
Irrigation	W test	0.11	44.85	0.000000002
Light	W test	0.13	36.43	0.000000020
Irrigation*Light	W test	0.21	20.88	0.000000115

Results of two-way ANOVA analysis are shown. Values in red indicate demonstrable influence ($\alpha < 0.01$) of individual factors. *W* test = Shapiro-Wilk test

Table S4

Two-way ANOVA: multivariate significance test. Comparison of the effect of Irrigation and Light factors on the concentration of HMs in the plant biomass

Effect	Test	Value	*F*	*α*
Intersection of values	W test	0.02	300.48	-
Irrigation	W test	0.19	23.71	0.000000003
Light	W test	0.02	347.75	0.000000001
Irrigation*Light	W test	0.35	10.29	0.000011238

Results of two-way ANOVA analysis are shown. Values in red indicate demonstrable influence ($\alpha < 0.01$) of individual factors. *W* test = Shapiro-Wilk test